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MEAN WELL

SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

PSP-500 SERIES

Jameco Part Number 190748 (PSP-500-48)

.LOW COST, HIGH RELIABILITY
.BUILT IN EMI FILTER, CURRENT SHARING CIRCUIT
.BUILT IN REMOTE CONTROL, REMOTE SENSE, POWER GOOD SIGNAL
.SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE, OVER TEMP. PROTECTED
.100% FULL LOAD BURN-IN TEST
.105◦C OUTPUT CAPACITOR
.BUILT IN PFC CIRCUIT PFC>=0.95, COMPLIES WITH EN61000-3-2

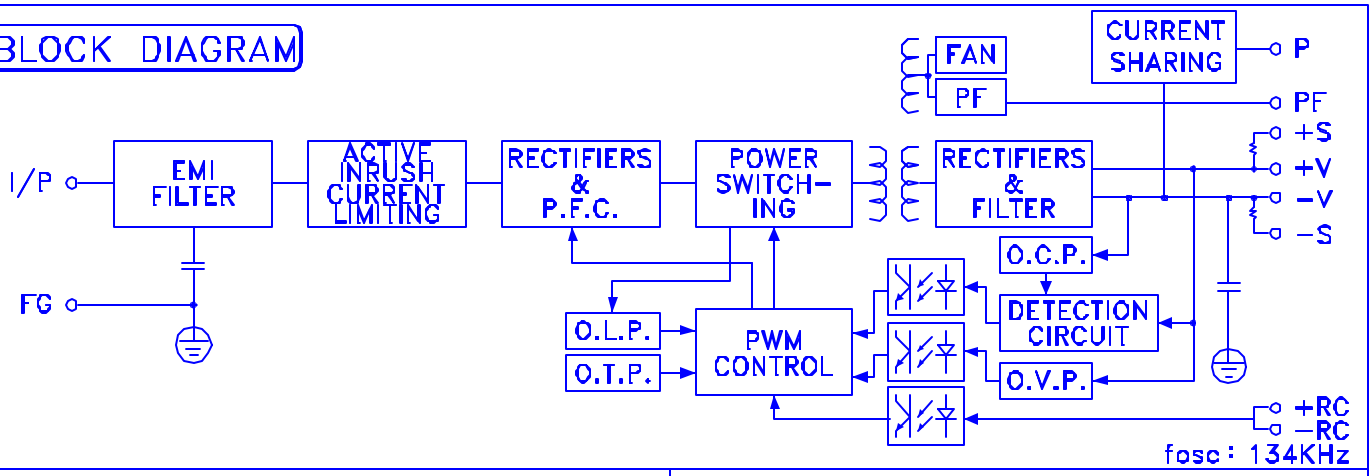
MODEL / SPECIFICATION	PSP-500 -5	PSP-500 -12	PSP-500 -13.5	PSP-500 -15	PSP-500 -24	PSP-500 -27	PSP-500 -48
DC OUTPUT VOLTAGE	5V	12V	13.5V	15V	24V	27V	48V
OUTPUT V. TOLERANCE	±2%	±1%	±1%	±1%	±1%	±1%	±1%
OUTPUT RATED CURRENT	80A	41.5A	37A	33A	20.8A	18.5A	10.5A
OUTPUT CURRENT RANGE	0-80A	0-41.5A	0-37A	0-33A	0-20.8A	0-18.5A	0-10.5A
RIPPLE & NOISE(Vp-p)	100m	150m	150m	150m	150m	150m	200m
LINE REGULATION	±0.5%	±0.3%	±0.3%	±0.3%	±0.2%	±0.2%	±0.2%
LOAD REGULATION	±2%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
DC OUTPUT POWER	400W	498W	499.5W	495W	499.2W	499.5W	504W
EFFICIENCY	76%	82%	82%	82%	84%	84%	86%
DC VOLTAGE ADJ.	4.75-5.5V	10-13.2V	12-15V	13.5-18V	20-26.4V	24-30V	41-56V
INPUT VOLTAGE RANGE	90~264VAC 47~63Hz; 127~370VDC						
AC CURRENT	7A/115V 3.5A/230V						
POWER FACTOR	0.98/100VAC 0.95/230VAC						
INRUSH CURRENT	20A/115V 40A/230V						
LEAKAGE CURRENT	<1mA/240VAC						
OVERLOAD PROTECTION	110~125% TYPE:CONSTANT CURRENT LIMITING RESET:AUTO RECOVERY						
OVER VOLTAGE PROTECTION	5.75~6.75	13.8~16.2V	15.5~18.2V	18~21V	27.6~32.4V	31~36.5V	57.6~67.2V
OVER TEMP.PROTECTION	RTH2>=95◦C OUTPUT SHUTDOWN						
REMOTE CONTROL	RC+/RC-: 0~0.8V=POWER ON; 4~10V=POWER OFF SINK CURRENT 4~10mA						
TEMP. COEFFICIENT	±0.03% / ◦C (0~50◦C)						
SETUP, RISE, HOLD UP TIME	1.5s, 50ms, 15ms						
VIBRATION	10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES						
WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC						
ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:500VDC / 100M Ohms						
WORKING TEMP., HUMIDITY	-10◦C~+60◦C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH WITH 30CFM FORCED AIR						
STORAGE TEMP., HUMIDITY	-20◦C~+85◦C, 10%~95% RH						
DIMENSION	278*127*63.5mm						
WEIGHT	2.5 Kgs						
SAFETY STANDARDS	UL1950, TUV EN60950 APPROVED						
EMC STANDARDS	CISPR22(EN55022)CLASS B, EN61000-4-2,3,4,5,6,8,11;ENV50204 EN61000-3-2 VERIFICATION						

NOTE :
1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.
2.TOLERANCE GINCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
5.LOAD REGULATION IS MEASURED FROM 0% TO 100% RATED LOAD.
6.REFER TO OUTPUT DERATING CURVE VS INPUT VOLTAGE.
7.IN PARALLEL CONNECTION, MAYBE ONLY ONE UNIT OPERATED, IF THE TOTAL OUTPUT LOAD LESS THAN 5% OF RATED LOAD CONDITION.

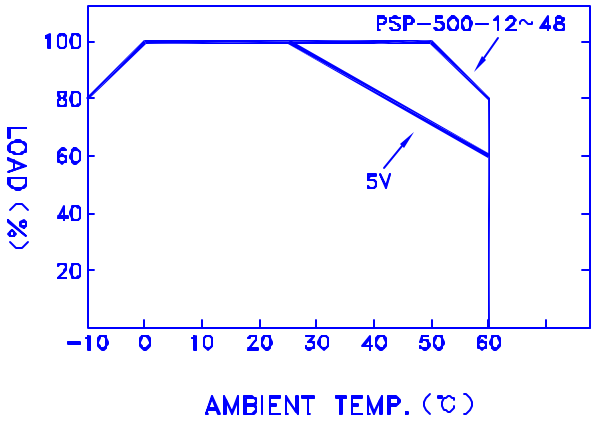
2002-07-23

NEXT (MECHANICAL INFO)

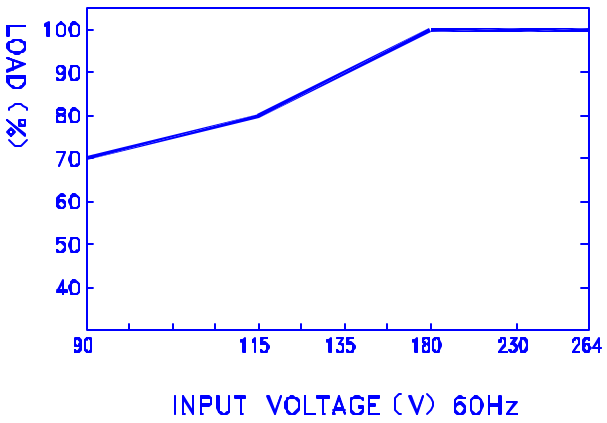
BLOCK DIAGRAM



OUTPUT DERATING VS Ta



OUTPUT DERATING VS INPUT VOLTAGE

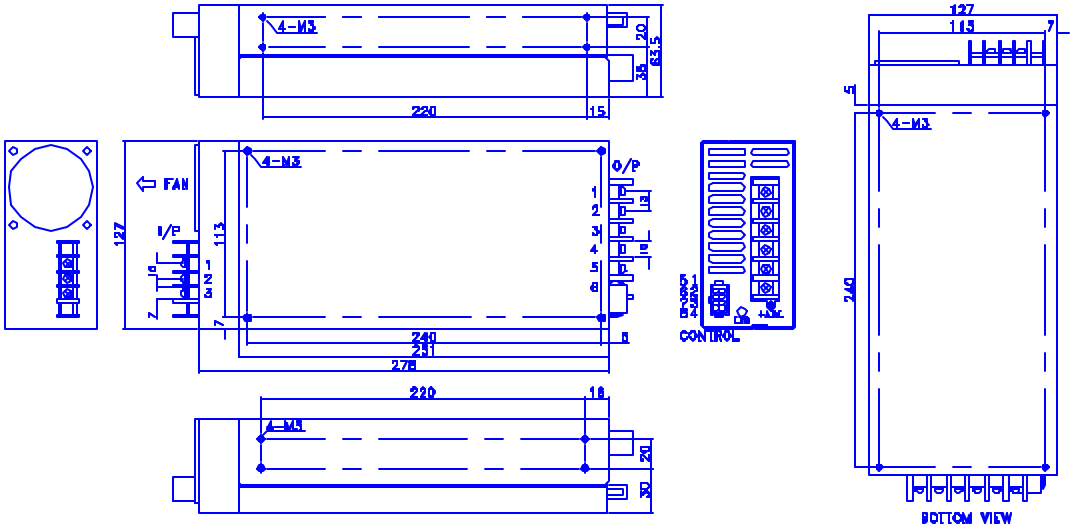


DIMENSION (mm)

- ☒ CASE : 919
- ☒ I/P TERMINAL PIN NO. ASSIGNMENT
  - ☒ PIN 1,2 : AC INPUT
  - ☒ PIN 3 : FG ⏚
- ☒ O/P TERMINAL PIN NO. ASSIGNMENT
  - ☒ PIN 1,2,3 : DC OUTPUT +V
  - ☒ PIN 4,5,6 : DC OUTPUT -V

- ☒ CONTROL PIN NO. ASIGNMENT
  - ☒ Molex 5559-NP Uses 5558 Male Crimp Terminal
  - ☒ PIN 1 : P(CURRENT SHARE)
  - ☒ PIN 2 : -S
  - ☒ PIN 3 : G
  - ☒ PIN 4 : RC-
  - ☒ PIN 5 : NC
  - ☒ PIN 6 : PF(POWER FAIL SIGNAL)
  - ☒ PIN 7 : +S
  - ☒ PIN 8 : RC+

- ☒ MATING CONNECTOR
  - ☒ Molex 5557-NR Uses 5556 Female Crimp Terminal Receptacle



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WORKING TEMP., HUMIDITY	-10◦C~+60◦C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH WITH 30CFM FORCED AIR						
STORAGE TEMP., HUMIDITY	-20◦C~+85◦C, 10%~95% RH						
DIMENSION	250*123*55mm						
WEIGHT	1.3 Kgs						
SAFETY STANDARDS	UL1950, TUV EN60950 APPROVED						
EMC STANDARDS	MEET CISPR22(EN55022)CLASS B, EN61000-4-2,3,4,5,6,8,11;ENV50204 EN61000-3-2						

NOTE :
1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25◦C 70% RH. AMBIENT.
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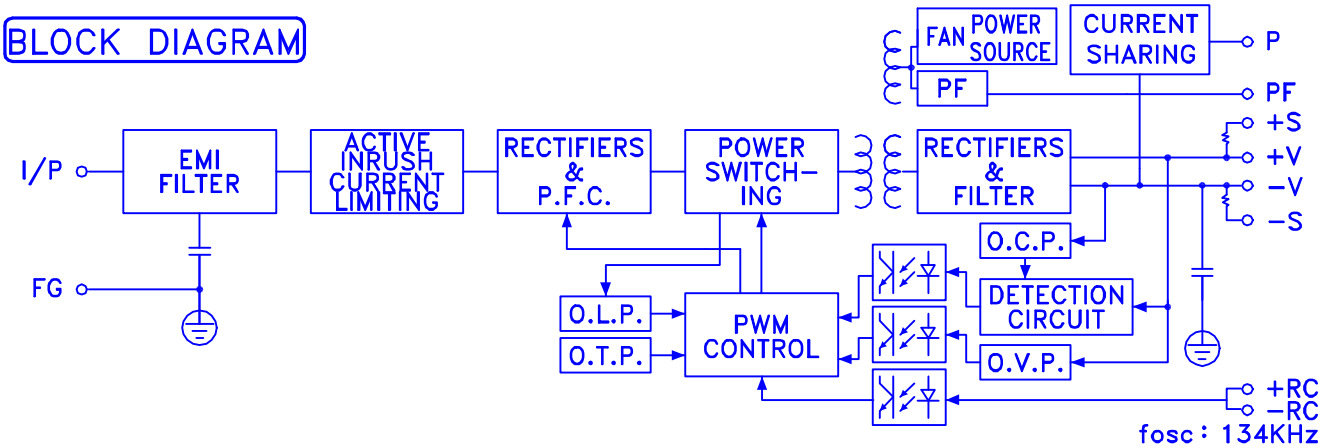
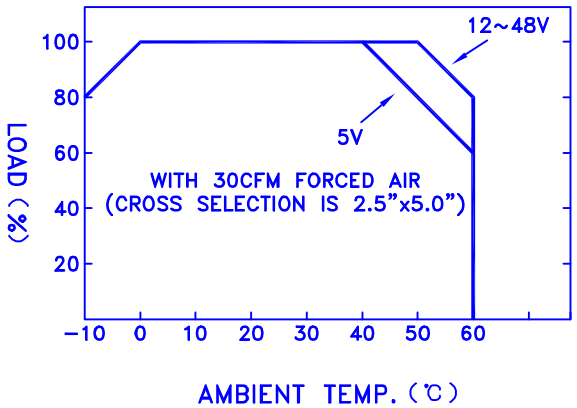
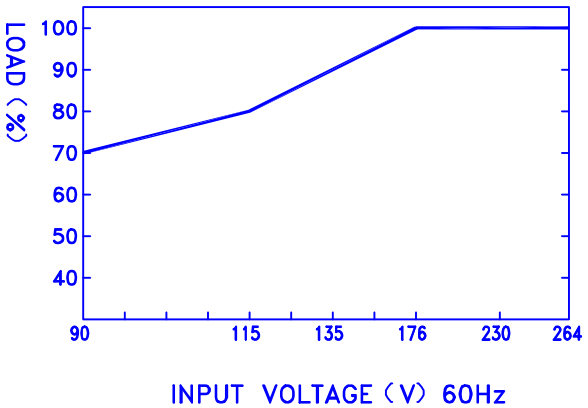


OUTPUT DERATING VS Ta



OUTPUT DERATING VS INPUT VOLTAGE



DIMENSION (mm)

- TERMINAL 1 PIN NO. ASSIGNMENT
  - PIN 1 : FG ⏚
  - PIN 2,3 : AC INPUT
- TERMINAL 2 PIN NO. ASSIGNMENT
  - PIN 1,2,3 : DC OUTPUT +V
  - PIN 4,5,6 : DC OUTPUT -V

- CONNECTOR PIN NO. ASSIGNMENT
- CN1 : JST B2B-XH
  - PIN 1 : GND
  - PIN 2 : +12V
- FAN POWER SOURCE
  0.3A max.

- CN2 : JST B7B-XH
  - PIN 1 : P(CURRENT SHARE)
  - PIN 2 : +S
  - PIN 3 : -S
  - PIN 4 : GND
  - PIN 5 : POWER FAIL SIGNAL
  - PIN 6 : RC+
  - PIN 7 : RC-

- MATING CONNECTORS
  - CN1,2 MATING CONNECTOR TYPE JST XHP SERIES OR EQUIVALENT WITH JST SXH-001T-P0.6 OR EQUIVALENT CRIMP TERMINALS
  - SVR1 VO ADJ.
  - SVR2 IO ADJ.